VOL. X.-NO. 30.

THE EVENING TELEGRAPH.

## ECLIPSE

The Great Event of August 7.

How it will Occur, and How it will be Observed.

The Theory of Solar Eclipses-Their Peculiar Phenomena-. The Umbra-The Corona-The Flame.

Eclipses of the Past-Darkness at Noonday - Consternation and Awe Science Pierces the Shadow, and Light is Revealed at Last.

As when the sun, new risen, Looks through the horizontal, misty nir horn of his beams; or, from behind the Moon, In dim eclipse, disastrous twilight sheds On half the nations, and with fear of change Perplexes monarchs.

OUR ECLIPSE.

On the afternoon of Saturday next, August 7, an eclipse of the sun will occur, noteworthy and important.

It will be visible as a partial eclipse from the barren steppes of Western Siberia, across the whole breadth of Alaska, British America, the United States, and the West Indies. This will be the most interesting eclipse that has occurred,

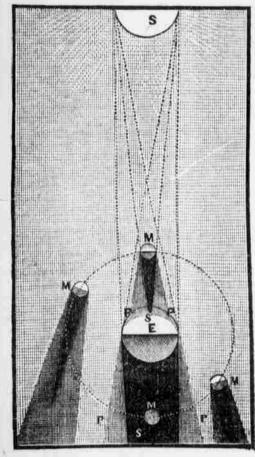


Figure 1.-S represents the Sun: M the Moon; E the Earth; P the Penumbra; and s the shadow.

or will occur, in the United States for many years. The sun will rise eclipsed as far westward as the islands of Japan, but to the inhabitants of Sitka, in Alaska, the observation will begin at 11'46 A. M. The people of San Francisco will need their glasses at 1.22 P. M.; and they had better have them well smoked, as they are so far to the southwestward as to see only one-half of the sun's disc darkened. The little town of Logan, in Nebraska, is the first point in the United States on the line of total obscuration; the time of "totality" will be 4.31 P. M .. lasting 2.4 minutes. Lincoln, O'Brian, and Boonesboro, in Iowa, will rejoice in a threeminutes' totality, greater than any other by six seconds; while Bowling Green, in Kentucky, and Knoxville, in Tennessee, must be content with the fact that they are permitted an obscuration, even though it should be so short as to defy eyesight, and require to be mathematically represented by 0 minutes. May the Parson be able to preserve his equilibrium of spirits under these trying circumstance; and may the President that was and is to be no more, be duly soothed by his customary spirits copiously im-

Newbern, North Carolina, will be the last point in the United States participating in the total phase of the eclipse. Its beginning (shadow) will be 6.58 P. M., and its ending 6.8 P. M., giving 2.2 minutes' duration. This Quaker City will witness-if a cloudless sky permit-11 digits out of 12 of the sun's disc eclipsed. The penumbral phases here will be: Beginning, 5.8 P. M.; middle, 6.6 P. M.; end, 6.57 P. M.; shortly before sunset. St. Louis. Chicago, and Cincinnati will slightly exceed this observation, while New York and Boston will have an inferior degree.

Eclipses, more than any other celestial phenomena, prove the perfect regularity of the motions of the heavenly bodies, demonstrating so legibly the unerring workings of the simple laws that govern their mighty revolutions in space npon the diagram of the sky, that the little child

can understand. Truly, "The undevout astronomer is mad."

And as the wondrous accompaniments of the total eclipse culminate in darkness on the earth, and in a flashing, blazing crown of glory alone left to mark the blotted-ont light of the sun, the awe-stricken gazer, be he savant or savage, cannot crush then in his heart the sentiment, "The heavens declare the glory of God, and the | binations are, of course, very rare,

firmament showeth his handiwork!" Thus preeminently does its magnificent phenomena proclaim the marvellous order of the heavenly host. Every heart must beat a startled throb when the watchful eye notes the first sweep of blackness, like the overhanging monster wings, or the shadow of a dark cloud, obedient to the very swing of the pendulum, the very tick of the watch, that the astronomer has predicted months

In view of the rarity of such a total eclipse of the sun in our own land; the popular interest that now centres in its occurrence, causes, and effects; the excellent and comprehensive preparations made by our professional astronomers to observe and record its phenomena, we present the readers of THE EVENING TELEGRAPH with an article as exact and exhaustive of the subject as our columns will allow. For the benefit of our younger readers, we introduce an explanation of the reason of the coming celipse, purposely given in as plain language as the subject will allow: if they cannot understand any point, they should ask an elder friend for assistance.

THE NATURE OF AN ECLIPSE.

As seen by the accompanying illustration Figure 1), an eclipse of the sun is caused by the shadow of the moon falling on certain parts of the earth-like the passing shadow of a winddrifted cloud on a river-and hiding the face, or disc, of the sun at those districts. In exact language, it is the earth, not the sun, that is eclipsed: and should the much-looked for Man in the Moon take a celestial observation on the coming Saturday, he will see the great sun shining with all its dazzling splendor, while part of our big globe will be enveloped in unusual darkness. And this is how our light will be taken away

How Solar Eclipses Occur. The earth and moon are two spherical and opaque bodies, and the halves of both are constantly illuminated by the sun, while the other halves are in the shade. While the moon's diameter is 2160 miles and the earth's 7925, the sun's diameter is 852,584 miles. Thus, as above represented, each of the two former throws behind itself, of course in the direction opposite from the sun, a shadow conical in its form, and determined as to its magnitude, shape, etc., by inuariable mathematical principles.

This cone of shade extends over all the parts of space from which the rays of sunlight are excluded by the interposition of the opaque body. It has two degrees of intensity. The inner portion, s, is called the shadow or umbra, and if within its bounds, a spectator beholds a total eclipse. The outer section, P, on either side, is called penumbra, and the section of the earth over which it extends experiences a partial celipse. The changing from the penumbra to the umbra is quite insensible, owing to the gradual blendings of the shadings; but at the outer extremities the eclipse is but slight.

The moon and the earth carry with them in their revolutions these cones of shades, and it is by the projecting of these partial or total shadows upon each other that the phenomena of eclipses are caused.

The calculation has been made and verified that the greatest length of the moon's shadow is 59.73 semi-diameters of the earth, at the same time that we know that the least distance of the moon from the earth is 55.95 semi-diameters. It is thus plain that when a conjunction of the sun and moon happens at a time when the ength of the shadow and the distance of the moon from the earth are identical, or nearly so, with the foregoing values, the moon's shadow extends beyond the earth.

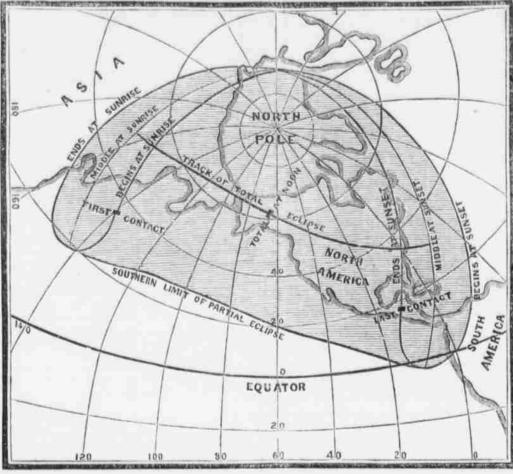
Fig. 1 explains, by its central bodies, the reason of the approaching obscuration, and shows that an eclipse of the sun can only happen at the time of new moon, for then alone occurs the conjunction of her interposition between the earth and the sun, with the projection of her cone of shade upon the earth. The lower figure of the moon exhibits the phase of its eclipse by the projection of the earth's shadow

directly upon it at the time of full moon. In brief, eclipses may be defined as a short interruption in the passage of light to the earth, which is either real, as in the case of the intrusion of the moon between the earth and the sun. or apparent, as occurs when the earth itself passes between the sun and the moon. The former comprises all phases of solar eclipses and the latter the lunar eclipses. Solar eclipses always begin on the west side of the sun and terminate on the east side; that is, the moon moves over the sun from west to east. The whole duration of a total eclipse is about two hours, and that of the total phase two or three minutes, more or less. There is no premonition of a solar eclipse, the moon (whose dark side is towards us) being invisible in the intensely brilliant beams of the adjacent sun, until her eastern limb (or rim) actually touches his western limb.

Different Kinds of Solar Eclipses. There are three classes of eclipses of the sun. It is total when the dark disc of the moon entirely covers the sun: partial, when only a portion of one side of the sun is covered; and annular, when the moon is at her furthest distance from the earth, so that her cone of shadow blots out only the centre of the sun, leaving the ring-like border unobscured. The visibility or invisibility of the eclipse at any point depends wholly upon the fact whether the conelike shadow is projected upon that particular urface of the earth or not.

Theory and observation alike prove that in the period of eighteen years and eleven days in which the moon passes to the same position in reference to the sun and its nodes-i. e., one of the two points in which the orbit of the satellite intersects that of its primary-there are in general seventy eclipses, of which fortyone are of the sun and wenty-nine of the moon There cannot be more than seven eclipses in one year, nor less than two; and if the latter, they must both be eclipses of the sun. Eclipses of the sun can only be seen at one zone of the earth, and that a very narrow one; for the dimensions of the shadow of the moon are small as compared with the earth. Out of the forty-sue solar eclipses which may occur in eighteen years, there are in general twenty-eight of these which may become central according to circumstances-that is, either total or annular. It results from Du Sejour's calculations that the greatest possib e duration of an eclipse of the sun cannot be more than 4 hours 29 min. 44 sec, at the equator, or 3 hours 26 min. 32 sec. for the latitude of Paris. In total eclipses the greatest possible duration of total obscuration may only be 7 min. 58 sec. at the equator and 6 min. 10 sec. at the latitude of Paris. Such com-

FIGURE 2. THE GREAT SOLAR ECLIPSE OF AUGUST 7, 1869.



In all the dark part of the engraving the eclipse will be visible and partial, except along the heavy black line, where it will be total. Along the line described above, the cellipse will be total, and at all other places in the United States it will be partial. The partial cellipse ends on the earth at sunset, in lat. 14 deg. 48 min. 54 sec. N., lon. 13 deg. 10 min. W., being near the city of Guatemala. Along the Atlantic coast in the United States the eclipse ends at about sunset. This celipse occurred last in 1851, July 28, and the total phase was visible in the arctic regions of America, and in Sweden, Norway, and Russia.

PHENOMENA OF A TOTAL ECLIPSE.

The chance of beholding a total solar eclipse in one's life-time is very small. On the 18th of July, 1860, this opportunity occurred in England, and the one previously observed at Greenwich was in 1715, while an interval of 375 years had elapsed between that and its forerunner. Those who have enjoyed this rare spectacle say that no more startling novelty can be witnessed or conceived of by mortal mind, and that the discomforts of a trip of hundreds of miles would be amply repaid by the spectacle. No approach to totality can give the slightest conception of the effect produced the instant that the last ray of light is extinguished. The light of the sun is so intense, that while the slightest part of the disc is visible, the darkness is by no means alarming. In partial eclipses the darkness is oftentimes not greater than that made by a passing cloud, and sometimes the obscuration is not noticed at all. Partial and annular eclipses are matter of simple curiosity; but the reverse is the case with the totality.

The Darkness. The gradual creeping of the moon over the disc of the sun gives no warning of the instantaneous extinguishment of all light. It is not a matter of gradation, so startlingly sudden is the blackness of darkness. All living nature thrills with awe and mysterious apprehe and the human heart quakes as if the horrors of the Great Assizes were about to dawn. The earth, sea, and skies assume a lurid, unearthly hue. An unearthly silence reigns at the moment of totality. Every earthly being acknowledges the influence, and cowers under the strange

blackness of the heavens. Beasts of burden lie down with their loads on the road, and refuse to move. Swallows in their bewilderment dash against the walls of houses, and fall down dead. The dog drops the bone in his mouth, and does not venture to seize it again until light returns. Little chicks huddle under the motherly wings of the hen; and even the ants halt in their tracks with their loads, and remain immovable until the shadow is past. The learned professor, as well as the unsophisticated peasant, acknowledges the feeling of mysterious awe. The bright stars and planets will then be seen at noonday while the black pall enshrouds that surface of our globe: The birds hush their songs and seek their nests, flowers fold their petals, the temperature falls, and the moisture of the atmosphere condenses in a heavy dew. Orange, yellow, and copper tints singularly checker the sky, giving it a startling, sometimes livid hue.

Bally's Beads.

In some cases when the margin of the moon comes in contact with that of the sun, instead of the faint and regular thread of light which would be expected to ensue, the appearance presented is a broken glimmer of light-a series of bright spots interspersed with dark spaceswhich was first noticed by the late Mr. Baily, who compared it to beads of light. These were noticed in total as well as annular eclipses, and were seen by different observers in the eclipse of 1851. They are generally regarded as being due to the rough and mountainous edges of the moon coming in contact with the margin of the sun, and the light proceeding from the latter shining through the chinks or valleys of the moon, the effect being greatly increased by irradiation.

The Corona. Even during the greatest obscuration, and when the disc of the sun is completely hidden by that of the moon, its place is still made apparent by a halo stretching off an immense distance into space (Figure 3.) This light appears in the remarkable form of a corona or lustrous ring, and it has sometimes been so bright as to be observed and mistaken for an annular eclipse. It has been compared to the crown of glory encircling the heads of saints. It is irregularly illuminated, giving the appearance of rays, and has been observed of curious shapes, as that of a Greek cross in the eclipse of 1860, and an hour-glass in 1842. In 1567 this luminous ring was seen, and mistaken for the margin of the solar disc; it was equally visible in 1598. Its radiating appearance seems to have been first noticed in the eclipse of 1652, and appeared to be endowed with a sort of rotatory motion. In every subsequent eclipse, observed under any favorable circumstances, the corona has been noted with equal plainness, generally of about one-tenth or one-twelfth of the diameter of the moon, and of a pearl-white color; or, in the words of an observer, of "that bluish tint which distinguishes the color of quicksilver from that of a dead white."

In the eclipses of 1842 and 1851, it was the principal circumstance to which the attention of the observer was directed; and M. Arago was able to perceive what might be termed two rings-the inner one, or that which bordered on the moon's limb, being of a uniform brightness, whence it faded imperceptibly outward, and terminated irregularly. The inner ring was 3 or 4 mins. in breadth; but the whole breadth of the corona was differently estimated by various observers as 8 min., 16 min., and 25 min. in

The appearance of this ring of light is now generally attributed to the effect of the atmosphere of the sun, rather than to anything of the same nature in the case of the moon. The latter was the supposition of Kepler, and before the want of an atmosphere was established by numerous proofs, it was the most natural theory: although the great breadth of the ring would go to prove that its height must be three or four hundred miles, or ten times the extent of the earth's atmosphere. No such difficulties exist in the case of its being supposed to be the solar atmosphere, while its concentric form, in regard to the sun at different periods of observation, tends still further to confirm this conjecture. The corona, however, cannot be identified as forming the zodiacal light; for it has mostly been observed of a circular form, whilst the Red Flames.

In the eclipses of 1715 and 1733, when the sun was wholly eclipsed, and only the corona was visible, the margin of the moon was noticed to be marked with some red spots, which remained visible for some seconds. Whilst observing the corona in 1842 these appearances again became unexpectedly conspicuous to the different observers. They were first observed a few seconds after the time of total obscuration, and were of a fine crimson tint, being compared by one observer to the peaks of the Alps illumined by the setting sun, and by another to beautiful sheaves of flames, which remained visible even after the sun had emerged. The length of the most considerable was, by actual measurement, found to be equal to 1% minutes of arc. Only two or three isolated prominences were perceived by the observers stationed in the south of France: but to M. Struve and Schidlowsky these rosecolored flames burst out at several parts of the lunar disc, a very large portion of the periphery being garnished with the crimson bordering. M. Littrow noticed that they changed their color as the eclipse advanced, being at first white, then rose color, and finally violet, passing afterwards in a reverse order through the same tints. In the eclipse of 1851 these crimson projections were of rare beauty, and appeared in great numbers. Some seen in this instance were crooked, and resembled a flame bent aside by the wind (Figure 4).

Those rose-colored prominences seen in the innermost and brighter zone present the most remarkable phenomena, baffling to science. They are curiously shaped. In 1851 one observer compared them to a boomerang, another to a baloon. Some have been compared to flames bursting from the housetop, others to the teeth of a circular-saw. Airy and Arago were the first to conjecture that these belonged to the sun; and the former showed it to be probable that these flames did not change during the motions of the moon. In 1860 Mr. De la Rue, by means of the Kew heliograph, set the matter completely at rest. From the pictures that he obtained, Mr. De la Rue was able to show that the flames only changed apparently, not really, owing to the moon in its motions covering one portion and disclosing another; so that when the clock of his instrument was adjusted to the sun's motion, that portion of the flames not covered by the moon stood still. These results were verified by Father Seechi, and fact is now established that no change occurs in their form during the interval of totality observations in the solar eclipse. Thus, equally with the corona, the Tresent theory is that these appearances are in the atmosphere of the sun. and are in nowise connected with the sun. Their reddish color would seem to show that they were of a cloudy nature, resembling our terrestrial clouds, and absorbing all the rays of the spectrum except the red.

ECLIPSE OF AUGUST 7, 1869.

Its Passage.

It will be remembered that our earth regularly rotates on its axis once in twenty-four hours, travelling at the rate of 1000 miles per hour to the east; and though to some this may appear

startling, yet how will their wonder be intensified when they comprehend that it has an additional motion in its orbit of 68,000 mlles per hour to the west! The moon is revolving around the earth at the rate of about 2000 miles per hour from west to east. It is plain, therefore, that the cone-like shadow of the moon, which at the coming eclipse will be 140 miles in diameter, cannot and does not remain long on the same part of the earth's surface. For the moon is flying around the earth in her orbit from west to east with the velocity, on the 7th of August, of about 40 miles per minute; and the hadow passes over the earth's curved surface with the increased velocity of about 44 miles per minute, or nearly three-quarters of a mile every second of time. Hence the whole circular shadow, of one hundred and forty miles diameter, sweeps over the earth, in a general direction from the west towards the east, forming a belt of its own width, more than six thousand miles long, in the short time of about two hours and a half. The penumbra covers a circular space of 4900 miles in diameter, the eclipse happening exactly at thousede. Thus, the axis of the shadow is inclined to the plane of the ecliptic, the shadow will be cut obliquely, and that part of the earth in the shade will be oval. Such a chart as the spectator would observe from outside of the earth, and the astronomer compile by calculation, is presented in

If that cut be compared, as the parallels of latitude and longitude allow, with a large map of the United States, it will be found that the central line of the path of the umbra enters the territory of the United States about two hundred miles northwest of Fort Union, which is situated at the junction of the Yellowstone and the Missouri rivers. It sweeps southeast across the Territory of Dacotah, and enters the State of Iowa near its northwestern boundary, near Lincoln, at 4.29 P. M. The gigantic wings of darkness, 140 miles broad, will sweep across the whole length of Iowa in less than thirty minutes. Springfield, Illinois, will be enshrouded at 5:05 P. M., Vincennes, Indiana, at 5:15, Louisville, Kentucky, at 5.25, Abingdon, Virginia, at 5.42. Morgantown, North Carolina, at 5:44, and at 6:5 the corona of glory will be reflected in the billows of the Atlantic dashing upon the islets of

Its Phases in Philadelphia.

Neither corona nor rosy-hued flames nor couscated rosaries of beads will be visible to the good dwellers in Philadelphia. The ill-conditioned kine left to browse on the scanty herbage of commons will not chew the cud of wonder: the grunters left to run loose among piles of bricks and mortar, and half-built houses and unsavory garbage, will not homeward plod their weary way on a doubled trot; the roosters penned up in city cellars will not huzzah out their cock-a-doodle-doos as the sun just sinks below the horizon. None of these wondrons things will be witnessed by our citizens, for Philadelphia will not be deprived of all her sunlight on that occasion. Attention to the following hints, however, will, if the weather permit, enable the partial eclipse to be enjoyed as it well deserves to be:-

Where nothing better can be had, a bit of plain glass, smoked over a candle or lamp, n some parts more deeply shaded than in others, to suit the varying intensity of the sun's rays during the progress of the eclipse, will enable the observer to see most of the phenomena. In the city it will be easy to procure eces of the red or ruby-tinted glass, of different shades or depths, from most of the glaziers, which may be used with advantage, instead of the smoked glass. Those who can command a good opera-glass, or small telescope of any kind, provided with a shade glass to screen the eye, will of course have a better view.

To those whose eyes require caution in using, and to others for variety sake, it will pay to take a large card with a small round hole in the centre, and hold it against the sun's rays, so that the shadow will fall on the floor, pavement, wall, or other dark and smooth surface. In the middle of the shadow there will be a true Image of the sun, and the ecilpse can be studied in its progress without straining the eyes, and without smutting face or hands with smoked glass. This simple process was suggested by the familiar circumstances that the light spots in the shadows during a solar eclipse take the shape of the luminous portions of the sun's disc, and the perforated card has been used with perfect success.

Points of Observation.

The exact astronomical figures of interest to this city are as follows:-The eclipse begins at 5h. 8.6 P. M.; it is greatest at 6h. 5.1m.; it ends at 6h. 576m. Its duration will be 1h. 49m.; its magnitude 10.9 digits (a total eclipse being 12); and its point of beginning 132 deg. The south side will be eclipsed. Applied practically in observation. all the above calculations are valuable, as they direct the attention to the exact time and point of the commencement of the partial obscuration. Let the spectator, while looking at the de-

clining sun, imagine a straight line drawn through the sun from top to bottom, and another through the middle from right to left, as if it were to be sliced into quarters like an apple. The upper point of the line will be 0 deg., the right hand point-of course, as the person must be facing to the west, his right hand will be towards the north-will be 90 deg., and the lowermost point 180 deg. Mldway between the latter two points may be inserted 135 deg.; at this point practically the first obscuration will be visible. The line of shade will creep gradually up over the disc of the sun, covering the lower limb regularly in its progress. At its greatest obscuration, about eleven-twelfths of the sun's surface will be darkened, and the small rim unobscured will be the upper section of its disc. As the sun sets on Saturday at 7-6, about ten minutes will clapse between the ending of the eclipse and the sinking of the sun, giving time for gay tinted clouds and the beautiful twilight, should the weather permit.

Interesting Points of Totality. For the benefit of those readers who may have the privilege of witnessing the totality, the chief points of popular interest, and those also which can be seen by the naked eye, are briefly recapitulated as follows:-

1. The changes in the color of the sky and the clouds, and in the colors and shades of the distant landscape, and also of near objects. 2. The approach and retreat of the dark shadow, which may be stated approximately to be at the rate of a mile a second. 3. The degree of darkness during the totality, its effect upon animals and plants, and whether stars can be seen; and if so, how many, what stars, and of what color. 4. The corona, or halo of light, which surrounds

the moon, and which usually appears three or tour seconds previous to the total extinction of the sun's light and continues visible for about the same interval after its reappearance. In general, it may be compared to the nimbus commonly painted around the heads of the saints. To the naked eye, the corona appears to start out from the dark body of the moon just at the moment of total eclipse. It is the most startling and impressive incident of the eclipse-the climax of the whole phenomenon—and perhaps the most thrilling effect in nature. 5. The rose-colored projections, which appear around the margin of the moon's disk, are often (though not always) visible to the naked eye. 6. The sphericity of the moon, which has sometimes been seen projected upon the bright sky; also the effect of the moon's hanging out in the sky between the earth and the sun, and sometimes apparently very near the former. 7. The moments of the four contacts should be noted by all who have even small glasses and who can obtain the correct time, and should be communicated to Professor Stephen Alexander of Princeton, N. J., who is the chairman of the committee on this cellpse, appointed by the National Academy of Sciences.

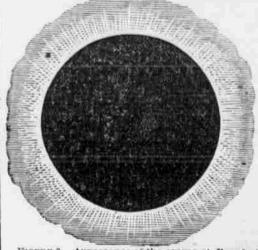


Figure 3.—Appearance of the corona at Beaufort, South Carolina, during the total eclipse of November

The Progress of the Eclipse is given in the following table, which presents the time of beginning, the middle, and the end. at various points in the United States, together with the number of digits obscured:-

PLACES.	Beginning	Mietille, Afternoon	End, Afternoon	Sies. Dipite.	Timb.
New York. Philadelphia Battimore. Boston. New Orleans. Cincinnati. St. Louis. St. Louis. Ghicago. Buffalo. Newark, N. J. Louisville, Ky. Albany, N. Y. Washington. San Francisco. Providence. Prittsburg. Rochester. Detroit. Milwaukee. Cleveland. Charleston. New Haven. Richmond. Lowell. Mobile. Hartford. Syracuse. Fortland, Me. Utica. Savannah. Wilmington, Del. Indianapolis. Trenton. Nashville. Oawego. Bangor, Me. Dubuque. Augusta. Ga. Se. Paul, Minn. Quebec. Montreal. Raleigh. Teronto. Raleigh. Teronto. Harten.	2444914443114015115152251552251552251552251552251552251552251552251552251552251552251552552	M. 11688819284 744 544 4682 201321 1201432 15015 150 150 150 150 150 150 150 150 1	6 52 3 38 Sun set 6 35 6 42 6 26 6 26 6 46 8 Sun set 6 30 Sun set 6 47 Sun set 6 47 Sun set 6 46 6 51 6 46 6 51 6 51 6 51 6 51 6 51 6 51 6 51 6 5	10% 111 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111% 10% 111%	SHEEKSKEES SHKESSESSESSESSESSESSESSESSESSESSESSESSESS

SCIENTIFIC OBSERVATIONS.

Important scientific expeditions have been organized by the National Observatory, the Nantical Almanac Office, the United States Coast Survey, by many of the leading universities, and by liberal citizens, to view the totality phenemena, with all the facilities for scientific investigation. The sun in various stages of eclipse, will be photographed; the time and incidents of the phases noted, and material secured for a special and exhaustive analysis of the spectroscopic phenomena.

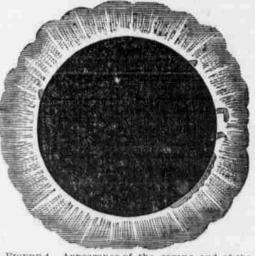


FIGURE 4.—Appearance of the corona and of the rose-colored flames in the total eclipse of July 28, 1851, in Sweden, and of that of August 18, 1868, in

The Alaska Corps.

The naval appropriation act of March 3d last having appropriated \$5000 for the observation of the cellpse, to be under the direction of Professor Coffin, the superintendent of the "Nautical Almanac," that gentleman at first decided to select either Ochotsk or Pensjinsk in Siberla, and Norton Sound in Alaska, as the most favorable positions for observing the eclipse. He applied to the Secretary of the Navy to send a ship to either or both of those regions in season for the observation, and Mr. Borie directed Rear-Admiral Rowan, commanding the Asiatic Squadron, to meet the observers at Yokohama by the first of July. Instructions were also sent to Rear-Admiral Turner, commanding the Pacific Squadron, to allow the party the use of the vessel stationed in the waters of Alaska for the purpose of making their observations.

Two parties were organized for this Territory, which is by far the best point of observation. With reference to the duration of the total phase, there will be a maximum of about three minutes and forty-seven seconds at a point north of New Archangel, in Alaska, to a minimum of two minutes and twenty-eight seconds

[Continued on the Second Page.]